THE

SOUTHERN AGRICULTURIST.

SEPTEMBER, 1828.

PART I.

ORIGINAL CORRESPONDENCE.

ART. I.—*On the Culture of the Silk-Worm*; *by* THOMAS SPALDING, *of Georgia.*

(Concluded from page 346.)

12th. I am not in the best situation for giving you all the information that this query calls for, about the city of Savannah; much might yet be learned upon the subject, which our printed papers do not afford; for the revolutionary war passed over Georgia like a fire, and left nothing behind it. Our State archives, our public records, were, many of them, destroyed or carried away. In M'Caul's history of Georgia, volume the first, page 251, we read;—"The export in Silk from 1750 to 1754, inclusive, amounted to eight thousand eight hundred and eighty dollars. In the year 1757, one thousand and fifty pounds of raw Silk were raised at the filature in Savannah. In 1758, the Silk house was consumed by fire, with a quantity of Silk, and seven thousand and forty pounds of cocoons, or Silk balls. In 1759, the colony exported upwards of ten thousand weight of raw Silk, which sold at two or three shillings per pound higher in London, than that of any other country." This account is vague, and by no means what it ought to be upon the subject, writing as Major M'Caul did in Savannah, where information might have been procured;—but he was a Soldier, and not an Agriculturist. Still we must be as-

tonished at the rapid increase this culture has made, considering the very few hands who were engaged in it; for, in the year '52, the proprietors had relinquished their claim to the crown. With this change of government, a change of views and objects took place; the colony was thrown open to emigrants from other states; who, removing into the country with their negroes, brought with them the subjects and the habits of cultivation to which they had been accustomed. Rice and Indigo were introduced by these emigrants, and being objects upon which masses of population might be brought to bear at once, and upon which, the year gave an immediate return, the culture of Silk was literally smothered by these articles. We have been unfortunately too prone to these revolutions in cultivation. Indigo has given place, since the war of the revolution, to Cotton; yet Indigo, at this time, would give twice the profit that Cotton does; and will, no doubt, soon be returned to. As far as I can learn, the annual product continued in Georgia, at about ten thousand pounds, up to the revolutionary war. In the year '75, I am informed, that the single house of Habersham and Harris, exported to London, eight thousand pounds of Silk. This information was received from one who was then in their counting-house; there are still a few hundred weight produced annually by the remains of the families who originally cultivated Silk; and it still bears the highest character as to quality, and brings the highest price.

13th. This Silk was always shipped in its raw state from Savannah. During the late war, the house of Andrew Low and Co. was supplied with sewing Silk from this source, which brought the grower twenty dollars per pound.

14th. The process of winding the Silk from the cocoon, is thus described in the 17th volume of the Encyclopædia Britannica, under the head of Silk:—"You must sort your cocoons, separating them into different classes, in order to wind them apart. These classes are, the good white cocoons, the good cocoons of all the other colours; the dupions, the cocalons, among which are included the weak cocoons;—the good choquette; and lastly, the bad choquette. In sorting the cocoons, you will always find some perforated cocoons amongst them, whose worm is already born; those you must set apart for fleuret. You will likewise find some

soufflons, but very few; for which reason, you may put them among the choquette, and they run up into waste. The good cocoons, white as well as yellow, are the easiest to wind. Those which require the greatest care and pains, are the cocalons;—you must wind them in cooler water than the others; and if you take care to give them to a good windster, you will have as good Silk from them as the rest. You must likewise have careful windsters for the dupions and choquettes. These require hotter water than the common cocoons.

"The good cocoons are to be wound in the following manner:—first choose an open convenient place for your filature; the longer the better, if you intend having many furnaces and coppers. The building should be high and open on one side, and walled on the other, as well to secure you from the cold winds, and receive the sun, as to give a free passage to the steam of your basins or coppers. These basins or coppers, are to be disposed in a row on each side of the filature, as being the most convenient method of placing them; for, by that means, walking up and down you see what every one is about;—and these basins should be two and two together, with a chimney between every couple. Having prepared your reels, which are turned by hand, and require a quick eye, and your fire being a light one under every basin, your windster must stay until the water is as hot as it can be without boiling. When every thing is ready, you throw into yonr basin, two or three handfuls of cocoons, which you gently brush over with a whisk, about six inches long, cut like a stumpy broom worn out. By these means, the threads of the cocoons stick to the whisk; you must disengage these threads from the whisk, and cleanse them, by drawing the ends with your fingers, till they come off entirely clear.

"When the threads are entirely clear, you must pass four of them, (if you will wind fine Silk,) through each of the holes, in a thin iron bar that is placed horizontally at the edge of your basin. Afterwards, you twist the two ends which consist of four cocoons each, twenty or twenty-five times, that the four ends in each thread, may the better join together in crossing each other, and that your Silk may be plump, which, otherwise, would be flat. Your windster must always have a bowl of cold water by her, to dip her fingers in, and to sprinkle, very often, the bar, that the heat

may not burn the thread. Your threads, when thus twisted, go upon two iron hooks, called rampins, which are placed higher, and from thence they go upon a reel.

"At one end of the axis of the reel is a cog wheel, which, catching in the teeth of the first rampin, moves it from the right to the left, and, consequently, the thread that is upon it; so that your Silk is wound on the reel cross-ways, and your threads form two hanks, of about four fingers broad. As often as the cocoons you wind are done, you must put fresh ones to keep up the number requisite, or the proportion; because, as the cocoons wind off, the thread becomes finer, you must join two cocoons, half wound, to re-place a new one; thus you may wind three new ones, and two half wound, and your Silk is from four to five cocoons. When you would join a fresh thread, you must lay one end on your finger, which you throw lightly on the other threads that are winding, and it joins them immediately, and continues to go with the rest. You must not wind your cocoons off too bare, or to the last, because, when they are near at an end, the husk joins in with the other threads, and makes them foul or gouty. When you have finished your parcel, you must clean your basins, taking out all the stripped worms, as well as the cocoons on which there is a little Silk, which you open, and take out the worm, and then throw them into a basket by you, into which you likewise throw the loose Silk that comes off in making the battue.

"You then proceed as before, with two or three handfuls of cocoons, and continue to wind the same number of cocoons, or their equivalents, and so to the end. You may wind your Silk of what size you please, from one cocoon to one thousand; but it is difficult to wind more than thirty in a thread. The nicety, and that in which consists the greatest difficulty, is, to wind even; because, as the cocoon winds off, the end is finer, and you must then join other cocoons to keep up the same size. This difficulty of keeping the Silk always even, is so great, that, excepting a thread of two cocoons, which we call such; we do not say a silk of *three*, of *four*, or of *six cocoons*—but a silk of *three to four*, of *four to five*, of *six to seven cocoons*. If you proceed to a coarser Silk, you cannot calculate so nicely as to one cocoon more or less; we say, for example, from *twelve to fifteen*, from *fifteen to twenty*, and so on. What number of worms are necessary to produce a certain quanlity of Silk,

has not been ascertained; and different persons who wished to determine this point, have had different results. The truth seems to be, that, from various circumstances, the same number of worms may produce more Silk at one time than at another. The cocoons produce a thread of very unequal length; you may meet with some that yield twelve hundred ells;—whilst others will scarcely afford too hundred ells. In general, you may calculate the production of a cocoon from five hundred to six hundred ells in length."

There are lengthy details in the American Philanthropic Reports, volume second, as to the best mode of killing the cocoons, preparatory to winding; on a large scale the oven has been used, the temperature of which is, about that from which bread has been just taken after being baked; but, as it is a delicate operation, to avoid the two extremes of too much or too little heat. On a small scale, hot water has been used, and upon a larger one, I would myself most certainly employ steam, which might be let into a cask or any other closed vessel; and which, from its penetrating quality, would complete the work of death in the shortest possible time, while it dissolved the gluton in which the Silk was enveloped, without affecting the fibre, by too much drying it. This I believe to be an important caution; for we find the fibre of the Cotton materially injured by much exposure to the radiant heat of the sun.

15th. Believing, as I do, that the Silk-Worm is one, and that any small shades of variety we discover, has arisen from bad climate, from bad food, or from bad treatment, it is only *necessary* to correct these things, and there will be no degeneracy observed in the insect. I do not understand that there has been the smallest degeneracy in the Silk-Worm, in Georgia. The largest and fairest cocoons should be selected for seed; nor do I believe there is any other rule necessary.

16th. We have seen that Georgia produced in the year 1759, ten thousand weight of good Silk, and continued that product up to the revolutionary war, under the small impulse that was given to it by the propriatory Government; but about the year '59, as it has already been stated, the province was thrown open to emigrants from other states, who brought with them their property and pursuits; and all public encouragement of the growth of Silk there ended. There was a public filature, or a house, for the unwinding the co-

coons, which had been erected in Savannah by the proprietors, and which stood there until 1797. It was sixty feet by thirty, two stories high, lighted on one side, with chimnies on the other; and according, in all points, with the verbal description given in answer fourteen.

17th. The first circumstance that presents itself under the spirit of this query is, that the culture of Silk is profitable or otherwise; will become a national object or otherwise, according to the situation and climate, which shall be selected from the renewed introduction and cultivation of Silk. Climate is every thing in the quality of the Silk; climate is every thing in the quantity of Silk. The worms perish for the want of early food; the leaves themselves of the mulberry tree taken prematurely, are only capable of producing Silk of an inferior quality. In the south of France even this culture has been restricted by the climate, as the following extract from Arthur Young, (second volume, quarto, page 37,) will show. "I was informed at Lyons, that the home growth was about 1,000,000 lbs. of two-thirds of the value of imported Silk, or about twenty livres to the pound. This makes the growth to the value of 20,000,000 livers, or £875,000. If so, Languedoc must produce more than 100,000 lbs.; for that produce is, at least, one-fourth, if not one-third of the whole. I must confess, I have my doubts upon this point, and think even 1,000,000 lbs. much exaggerated; for I crossed the Silk country in more than one direction, and the quantity of trees appeared inconsiderable for any such produce. But, admitting the authority, and stating that the kingdom does not produce the amount of 8 or £900,000, I must remark, that the quantity is strangely inconsiderable, and seems to mark, that the climate has in it something vastly inferior to that of Italy, for the production of this commodity; in which vicinity there are little principalities that give more than the whole kingdom of France."

And again, in the same page, he says—"In 1788 there was a general failure in the south of France; yet, across the Pyrenees, in Catalonia, the crop was abundant, merely because the spring frost did not pass those mountains." At page 332 of the same volume, Arthur Young gives a table of the products of the province of Valencia, in Spain, for the year 1787, in which Silk is put down.

	reals de vellon.
Silk 2,000,000 lbs. at 60 reals,	120,000,000
Equal to	£2,000,000

a sum, equal in amount, to all the other productions of Valencia. This product of Silk in Valencia under the wretched government of Spain, shows the importance of the Silk culture in climates adapted to it. The climate of Georgia is more temperate than the north of Italy, and is quite as much so as Valencia. The mulberry is in leaf by the first of March, in Georgia, and never has, in my memory, been in any degree affected by spring frosts. It grows in every variety of soil, with scarcely any marked preference; many of the trees reach a great magnitude, and every year are loaded with fruit;—there are still persons acquainted with the process in all its details, but it is necessary to give an impulse to this culture; because, in this young country, and this country of limited capital, there are few persons who can look forward for five or six years, waiting a remuneration for time and capital expended. It belongs then to the Government to give this impulse; and in doing so, to extract the bitter feeling, which, I can assure you, Sir, exists in the mind of the Farmer and the Planter, under the impression, that millions have been expended by the Government for the protection of commerce; that millions have been subtracted from the product of his labours, under the form of duties and of imposts, for the encouraging and fostering of manufacturies; but that neither the Executive or Legislative Government of this country has taxed itself with one hour's deliberation upon the multiplication or the improvement of the subjects of his industry.

If Congress will then offer some substantial reward to him that shall first cultivate ten thousand Mulberry trees, upon one hundred acres of land; erect all the necessary buildings, and go in good faith into this cultivation, on that scale, you will find that the cultivation of Silk will at once be established in the Southern States.

Of the success of such an undertaking, after the researches I have gone into, I am perfectly satisfied; nor is it Italy or Spain under their present form of Government, or under the existing distribution of property in those countries, that could compete with Georgia and Carolina in this article;—and they would as soon sink before our efforts in the grow-

ing of Silk, as all other countries have sunk before the United States in the growth of Cotton, in the growth of Rice, in the growth of Wheat, and in the growth of Tobacco; for you will pardon me, in saying, that we bring more of intellect and of energy into our agricultural operations, collectively, than any people under the sun. When we look to those countries that have at all times been productive in Silk, we find them filling a space between the temperate and the torrid zone; the southern provinces of China, the southern provinces of Persia, Syria, Italy, and Spain. Some degree of cold is probably necessary to throw the worm into a state of repose, and to make it slumber through the year; some degree of cold is necessary to make the Mulberry tree shed its old leaves, and come forth with a renewed covering, to meet the annual arrival of the insect; and it is only, Sir, by marking the indications of nature, and pursuing them, that man or men, that individuals or the Government can meet, or deserve to meet with success in their undertakings;—and I remain, Sir, with great respect, your very obedient servant,

THOMAS SPALDING.

ART. II.—*On the Manufacture of Salt; by* A. G. R——.

WE request our readers on the sea-coast to bestow some attention to the following interesting article on the manufacture of Salt. The patriotic author justly observes, that "we are not aware of all the resources of our country." We, on our part, unhesitatingly say, that we believe no country has so many.

The operations of Salt making are peculiarly adapted to the neighbouring parish of *Christ Church*, and to the borders of the harbour of Charleston, *in the town*, as well as *out* of it. We have long thought there ought not to be a pauper in this city, the blind and crippled excepted; and that profitable employment might always be found for the poor. If the manufacture of Salt were introduced on the low water lots and marshes, and the culture of the Silk-Worm on the vacant town lots and unprofitable neck lands, the poor-house might almost be

shut up, and its rations stopped; for a large poor family would no longer be a burden and a task upon the public.—EDITOR.

Mr. Editor,—Among the various sources of profitable employment which our country presents to the enterprise of its inhabitants, there is, perhaps, none which has been more neglected, or rather, which appears to have been more entirely over-looked, in our immediate vicinity, than that of *the manufacture of Salt by spontaneous evaporation.* While almost every well conducted farm on the sea-board, throughout the northern and eastern States, is furnished with its lines of sun-works, which supply to their owner, from one to two thousand bushels of Salt, annually, and with scarcely any additional labour,—it would appear, as if it has never, as yet, entered the minds of such of our Planters as are similarly situated, to attempt the experiment of adding to their other interests, so productive and profitable an auxiliary.

It is my design, in the present essay, to endeavour to furnish your readers with a practical illustration of the nature and process of the manufacture, in the hope, that a subject of so much importance to individual prosperity, as well as sectional independence, may, at least, prove interesting, if it does not elicit a more serious attention from those, whose local advantages may render it an object of some consideration.

Bay Salt, as it is called, is generally considered superior in purity and strength to any other that is made; because, by the process of natural evaporation, its concretion is rendered more free from the several neutral salts and other impurities with which sea-water abounds. By the process of artificial evaporation, or *boiling*, the saline deposit becomes strongly impregnated with these foreign mixtures, which is the cause of nearly all salt produced in this way, contracting moisture from the atmosphere, and sometimes possessing a bitter taste. As sea-water contains, in solution, the following ingredients, namely, muriate of soda, or common salt—muriate of magnesia, and the sulphates of magnesia—lime, and soda,—it is evident, that, by a slow and regular process, these different properties are more capable of being

composed and precipitated, than by producing a hasty crystallization by the aid of fire. But, independent of this great advantage, the very little labor and expense, after the first outfit, which is required to be bestowed on the undertaking throughout its progress, renders it decidedly the most profitable method of manufacturing the article, especially in this country. I shall, therefore, proceed to describe the machinery necessary to be employed, and the process to be pursued.

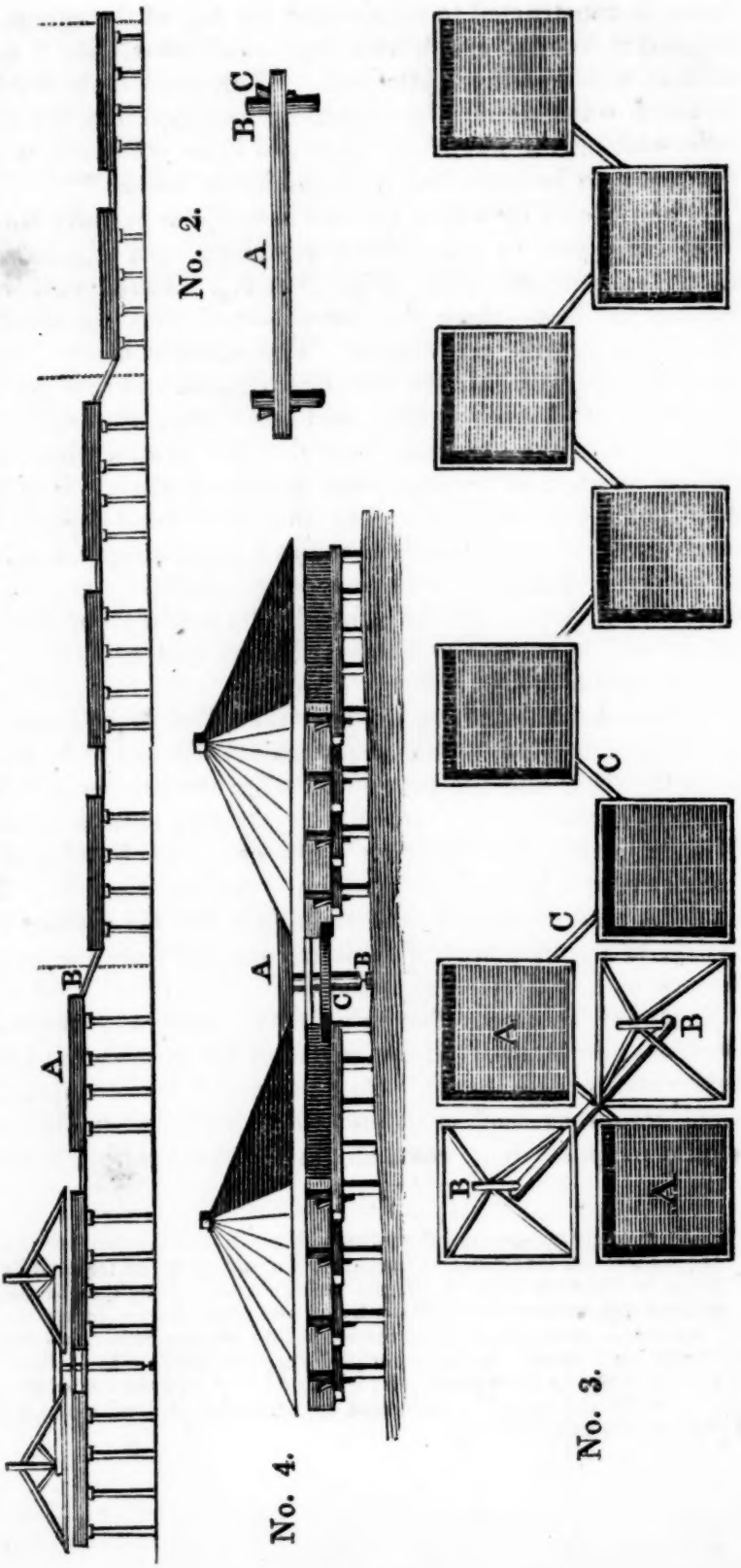
The most improved salt-works that are now used at the North, consist of a reservoir of sufficient dimensions, to contain a constant supply of water for as many lines of works as are contemplated to be erected. These lines consist, each, of eight vats or pans, eighteen or twenty feet square, by six inches deep, made of wood, and connected together by gutters, on an inclined plane; *(See Plate,—Fig. No. 1;)* being highest at the reservoir, and lowest where the salt is formed. They are made of rough plank, fitted together by a *straight joint*, and laid upon four or five pieces of scantling of suitable lengths, having a mortice cut in each end to receive a tenon, *(See Fig. 2,)* which, when wedged up, combines the whole work together. Grooves are made in the bottom boards, to receive the sides which run across the grain of the wood. These seams usually require to be caulked, but no where else, as the swelling of the wood, when the pans are flowed with water, causes all the other seams to be perfectly tight. No nails are employed in making the pans. The arrangement of the vats presents to the eye the appearance of a checker-board, *(See Fig. 3;)* supposing the black squares the vats, and the white, the intermediate spaces, which spaces, are designed to contain the swinging sheds, when the vats are uncovered. These sheds are constructed upon a king-post, that is placed upon a pivot, between the adjacent points of each pair of vats. *(See Fig. No. 4.)* A beam, extending across the post, to about the middle of each vat, sustains the sheds, which are pitched to a point, and are roughly made of light materials. A small boy is capable of swinging these sheds on and off the vats, without any difficulty. The next thing necessary, is a common pump, with a frame and platform around it, *(See Fig. No. 5.)* to be situate conveniently to the reservoir, in a spot overflowed at half tide. A small

frame is constructed to turn round the top of the pump, and support a wooden crank with four small arms, like a windmill, to which sails are attached. With this simple machine as much water as may be required is pumped into the reservoir, without the aid of any personal labor whatever, it only requiring to be propelled by a moderate breeze.*

The process by which the salt is made is equally simple. The eight vats or pans above-described, are divided into three departments. *(See Fig. No. 1.)* Three vats comprising the first—three the second—and two the third;—which last are the salt rooms. The water is first conveyed from the reservoir into the first department, where is deposited all the mud, animalcula, and other impurities contained in the water, at the same time that the evaporation of its lighter properties proceed with great rapidity. It is then drawn off, by pulling out a plug, into the second department, when the first immediately receives a fresh supply from the reservoir. A strong brine is soon generated in the second department, where all the neutral salts begin to be precipitated, which cause the bottoms of the vats to assume the appearance of being covered with lime. At this particular crisis, the brine is drawn off into the third department, or salt rooms, and the second department is immediately flowed from the first, and the first again from the reservoir. The brine in the salt rooms speedily crystallizes into salt, which falls, in beautiful transparent globules, to the bottom of the pan, leaving a bitter liquid, which is the Epsom salt. This liquid is now drawn off, and the salt is left for a short time to dry, or another flow of brine is supplied from the second department, if deemed expedient.

It would be impossible to estimate, with any degree of accuracy, the general cost of works of the description I have here attempted to detail. So much must depend upon the local resources and facilities which each individual who should purpose their erection, may possess within himself,

* We strongly recommend the introduction of this simple but useful pump to the market gardeners near Charleston, for raising water from wells into cisterns, to water, or rather to irrigate their gardens. They may be usefully employed also in emptying the ponds and other low places, in the vicinity of Charleston, Beaufort, or other towns, as they require little or no superintendence, and even to throw water into small rice fields. In Holland, the low grounds are kept constantly dry by wind mills. By the use of the same kind of mills, rice might be cultivated to advantage on land too high to be flowed by the tide.—Editor.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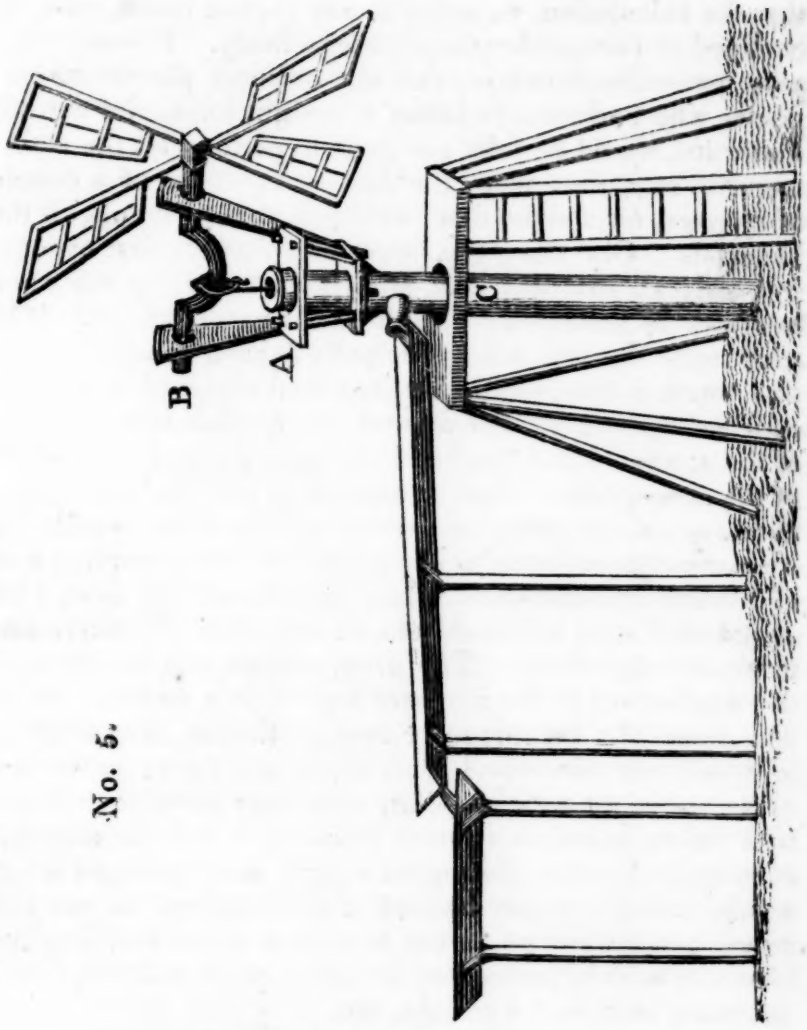

No. 5.

Explanation of the Figures.

No. **1.**—A side view of a line of salt-works, showing the elevation of the pans or vats, and connection by gutters. A. the vats. B. the gutters. The three first vats on the left hand side form the first department; the three next, the second department; and the two on the right hand side, the third department or salt-room.

No. **2.** Represents the joists on which the floor of the vats rest. A. a scantling or josit long enough to project beyond the sides of the vat, about 12 or 14 inches, with a mortice at each end. B. a tenon to fit the mortices. C. wedges to tighten the frame when necessary.

No. **3.** Birds-eye view of the vats in line, showing the spaces for the sheds. A. A. the vats. B. B. the swinging sheds. C. C. the gutters.

No. **4.** Represents two vats when covered by the swinging sheds. A. a king-post. B. a pivot. C. the gutter.

No. **5.** Pump and Wind-mill. A. a moving frame. B. a live-oak crank. C. the pump.

that the calculation, to arrive at any certain result, must be confined to each undertaking, respectively. I should suppose, generally, however, that any ordinary plantation carpenter who understands fitting a straight joint, and cutting a mortice, would be fully adequate to perform all the workmanship requisite; while the diligent exertions of a couple of sawyers, for a short time, would be able to supply all the materials One thing too, is certain, that the first expense is nearly all that will ever after be incurred, as the wood becomes so saturated with salt that it never decays. The profit to be derived, must principally depend upon the *attention* which is observed, in keeping up the process in full and constant operation. The natural acceleration or suspension of the process, will depend entirely upon the heat or moisture of the atmosphere. Salt, produced by this method, is, perhaps, as strong, pure, and white, as any in the world. It is invariably preferred to any other, for the preservation of all alimentary substances. In a hot climate like ours, I am confident it may be manufactured with little difficulty, and to almost any extent. The great success that has attended the experiment in the northern and eastern States, has induced me, Mr. Editor, to be thus particular, in exhibiting, in detail, the means and process pursued there, in the manufacture of the article:—but, with your permission, I will take the occasion, in a future number, to call the attention of your readers to a plan, upon a much more enlarged scale; which, though as yet untried in this country, is one that nature particularly points out to us, and which has, for ages, been extensively prosecuted in many parts of Europe with abundant success. I remain, &c.

A. G. R——.

(To be continued.)

ART. III.—*On the Culture of Red Clover; by* JOHN E. COLHOUN.

TO THE EDITOR OF THE SOUTHERN AGRICULTURIST.

"Pendleton, July 14, 1828.

Dear Sir,—Observing in the last number of your Work, that you have re-published a fact, as to the resuscitation of a crop of Red Clover, which I had incidentally stated to the

Editor of the "American Farmer;"—I beg leave to state it more particularly, believing, that an inference may be drawn which may prove useful, at least, to the upper part of our State.

The cultivation of Red Clover, as an improver of our soil, and as a substitute for that continual draft on our corn cribs, has been long a desideratum in our system of husbandry; but it has been heretofore neglected, from an impression, that the heat of our sun was too intense, and our soil too arid for its product. But the result of my little experience has, I think, clearly proved, that it will not only flourish well, but that it is very difficult, if not impossible to eradicate it.

I think, on reflection, that it was in February 1816, that I sowed two acres in Clover and Timothy, with a little Oats, intended as a shield against the heat of the sun;—the latter took the lead—matured, and was cut, leaving the former thinly scattered over the surface. It was suffered to remain that season, and go to seed on the ground;—the spring following being very wet, the whole surface was completely covered with the most luxuriant growth of Clover and Timothy that I ever saw. At the proper time, it was mowed, and all who saw it, were astonished at its product. The next year proved dry, and it did not succeed so well.

The high price of Cotton, the cultivation of which, at that time, seemed to absorb every other pursuit, induced me to abandon the idea of grazing, which I contemplated at the commencement of my experiment; and the Clover patch was ploughed up very deep with a two-horse barshare, for potatoes, preparatory to a crop of Cotton which followed, and was continued three or four years successively, yielding not less than one thousand pounds of green seed per acre.

It was then well manured, and planted in corn, five feet by eighteen inches in the drill, to contend for a premium, offered by our Agricultural Society. The product was fifty-nine bushels and three pecks per acre, notwithstanding it suffered severely from drought; otherwise, all who saw it growing, believed that it would have made from seventy to eighty bushels per acre. The year following it was sowed in Rye, yielding a fine crop;—then planted in Corn again; then rested one year; and, finally, sowed in Oats last February; and, to my astonishment, as well as all who have seen it, *a fine growth of Clover has sprung up, where there has not been the least vestige for ten years.*

It is scattered over about two acres; but an acre, or a little less, has turned off very nearly four large wagon loads of hay, as much piled on, as four large mules could draw. He must be sceptical indeed, who does not believe that Red Clover* can be successfully cultivated, at least in our upper districts, after the result which I have stated.

Hoping that its cultivation may become general, and believing that it is of the utmost importance, not only in renovating our exhausted fields, but as furnishing the means of rearing our own stock, which all must admit to be necessary in these *Tariffic* times;—I beg leave to subscribe myself very respectfully your's, &c.

JOHN E. COLHOUN.

ART IV.—*On the Culture of Potatoes; by* Dr. J. S. BELLINGER.

Gentlemen.—With the hope that I may induce some of you to communicate to our Society the results of your agricultural experiments, I will state the produce of one acre, (210 feet square,) planted the last season with potatoe vines. The crop, indeed, was comparatively small, though it had been planted much earlier than usual. But the short crop I ascribe to the fact, that the same acre had been planted for four years successively, in slips. In this conclusion I am confirmed, when I consider, that my slip-crop was, in general, a good one; viz. one hundred bushels per acre, where the slips were planted alone,—and fifty bushels per acre, where they were planted among the corn.

The acre was planted with vines on the 28th of May, 1827, along beds, two feet nine inches apart, and was hoed three times. Early in April, twenty bushels of cotton-seed were thrown broad-cast over the acre, and ploughed in. Some days before the slips were planted, the cotton from six to ten inches high, was ploughed in, and then small beds were made, by throwing one furrow with the shovel-plough on each side of a trench made with a tracking-plough, at two feet nine inches apart. After the beds were thus formed,

* The White Clover grows spontaneously with us, and is very common.

previously to planting the vines, half a bushel of cotton-seed was thrown each side of the beds;—one-half only of the acre was treated in this way.

When the acre was dug, the 6th of November, 1827, though the potatoes fully came up to my expectations as to size, the entire crop was much less than I calculated upon, being only one hundred and twenty-seven heaped bushels, as will be seen from Mr. W. R. Bull's certificate. Whether this was altogether owing to the land having been planted for four years in potatoe vines, or to the distance the beds were apart, or to both causes, future experience must decide. Having for two years planted the potatoe vines along the beds of some of the corn, I am induced to recommend this plan to your notice. The corn must be ploughed the two last times only one way, and after the slips are planted, two hoeings will make the potatoe crop. The first hoeing will much benefit the corn crop. I would prefer the corn beds to be laid by north and south, and to plant the slips in three chops between the corn. By this plan, the slips will be less shaded by the corn, and will receive more benefit from the morning and evening sun. As soon as the corn will admit of it, it should be turned down. Allow me to state, that after several years' experiments, I am fully satisfied as to the advantage of planting the potatoe without cutting it; and especially with the view of having early vines for planting. Having understood that the late Mr. Allen, (the surveyor,) made two great crops from the roots of the Yam Potatoe, by cutting them into very small pieces, and planting them every two or three inches along the beds. I intend to test his plan by experiment, during the ensuing season. I have brought for your inspection, a few of the "Leather Coat Potatoes;" a bushel of which, during the last season, was politely presented to me, by Dr. John Ramsay, of St. Paul's Parish, with the expectation that they would prove valuable in our district, being unusually early and productive. They proved very productive with me; one quarter of an acre of slips producing more than forty bushels, and three rows of the roots, (210 feet long,) fifteen bushels. In one respect they differ from any of the other kinds of potatoe I have ever seen; viz. there was more blossoms on one row of these, than there was, at the same time, on at least half an acre of the other potatoes. As these potatoes are not common with us, I have called them the Ramsay potatoe. From

my next crop, I hope to furnish my neighbours with slips of this potatoe.

With much pleasure, I acquaint the Society, that I have been requested by Mr. Hugh Wilson, of St. Paul's Parish, to present them with a pair of Dishley sheep, of pure blood. They will be exhibited in Charleston, at the cattle show, on the 22nd of next month, and will then be at the disposal of the Society. This breed of sheep received the premium of the "Agricultural Society of South-Carolina," and the mutton is of the first quality. The Society perhaps will allot them to some member to make a fair trial of them; and I will, with pleasure, have them brought up to my plantation.

Permit me to call your attention to the "Southern Agriculturist," and hope, that the Farmers of the Southern section of our country, will not suffer this work to languish, either for want of subscribers, or of such communications as must be of interest to Farmers, generally. The first Number contains an article on a subject of primary importance to us; viz. on Reclaiming Salt Marshes. Most of us, I may venture to assert, are fully satisfied, that the most fertile parts of our district are yet in a state of nature. I allude to our swamps and low lands,—they only wanting capital and perseverance to make them nearly equal to those fertile lands which are yearly inducing so many of our citizens to emigrate.

As I know many of our members perform their farming operations with much method and success, I regret that they cannot be induced to give us the result of their many valuable experiments.

With my best wishes, that the formation of our Society will produce beneficial effects to the interests of our district, and eventually, (by contributing its mite,) to our beloved country, I am, with much respect, your's, &c.

JOHN S. BELLINGER.

January 18, 1828.

ART. V.—*On the Culture of the Sugar-Cane, for Horse-Food; by* B. B. SAMS.

"Beaufort, June 24, 1828.

Dear Sir,—Having been informed that some of the subscribers to your very useful Work, wished to be informed of

my method of cultivating the Sugar-Cane, I send you the following short statement, which, if you think it will afford satisfaction, you may insert; but I am satisfied that I shall not be able to offer any thing new on the subject, as I shall not indulge in any speculations, but give a plain, farmer-like statement of facts.

I usually cut my Cane after the first white frost. It is then stacked in the field until it can be stripped of its leaves, and housed; the small Cane, and sometimes the tops of the large are put aside for planting. I generally plant as soon as I clear the field of Cane, which is about the last of November or first of December; the land is banked up, (as if for potatoes,) and trenched deep;—the Cane is divided into cuttings, of from three to four eyes to each cutting, and laid in the trench touching each other, and covered from the ally from three to four inches deep. I always have to hoe the land before the Cane is up, and sometimes haul to the beds, (as some of the Cane will be uncovered by the hoe,) after this, it is very seldom hoed more than once, and hauled once, making four workings; five will always do, and less, if the Cane be planted later.

I keep the Cane stripped of its leaves in a cellar, where I find it keeps very well until the following March. Although the eyes get injured, which would be a disadvantage for planting; but as the Cane I put up, is only intended as provisions, I pay no attention to the preserving of the eyes. The last winter being very warm, my Cane spoiled, and was unfit to feed horses with after the middle of February, having become acid;—I plant it only as provisions for horses, and feed from six to eight of them at labour, from the first of November to the first of March, from the product of six tasks, (one acre and a half,) besides planting the land again, and giving a considerable portion of the largest Cane to the negroes; and, as I do not keep it under lock, another portion is sure to be taken off;—but I do not think that my land, without manure, would produce Cane sufficient, per acre, to feed twenty head of stock, unless they were allowed other food.

I remain your humble servant,

B. B. SAMS.

ART. VI.—*On our Southern Agricultural Concerns.*

We expressed some of our ideas on Manufacturing in the South in our last Number, and, on further reflection on the subject, viewing its influence on these States, and on their policy, we see no reason to recede from the opinion then given—but the reverse. The liberty we took in strongly urging our readers not to embark their capital in manufactories, for profit—we hope will be taken in good part by them. Our advice was founded upon Southern agricultural follow-feeling; upon some experience—not in manufacturing precisely, but in matters requiring similar foresight, and embracing the same kind of calculations;—dictated too by a real desire for the welfare of these States; and to prevent that, which, we think, would, in reality, injure them materially.

That the General Government has laid the foundation for over-trading in manufacture, to an enormous extent, by the extravagant premiums it gives on them, is as clear to every reflecting mind, as is its infringement of the social compact of the Constitution itself. That the same causes which are about to produce a state of affairs amongst the promoters of the Tariff themselves, ruinous beyond all calculation, have already sown the seeds of re-action amongst other classes—we feel, and see to be as evident. That the voice of the South has been heard from afar—and, that it will be re-echoed by every unenslaved inhabitant of the vast sea-board of the Union;—that the continued declarations of our wrongs, and of their grievances, will bring a change of men, and with them, a change of measures,—is as apparent as the ruin that would follow from yielding to oppression.

It would be madness then, in the face of such a change, for us to enter into manufacturing in the South. But, in addition, manufacturers depend upon consumers;—they must have customers. The inhabitants of these States are themselves the consumers. If *they* become manufacturers, where will be their customers? The reply is a ready one, and it lets us into one of the main secrets and mysteries of manufacturing. There can only be a few required to manufacture,—the great body must be left to consume—*and to support them!*

As regards the policy of establishing factories for our own supplies in the Southern States, we would observe, that, at present, we are all united by one COMMON AGRICULTURAL INTEREST, which binds us closely together as a band of brothers. We may, if we please, be a happy illustration of the fable of the father and his son, of the bundle of sticks closely tied—and thus tied, not to be broken. If we become manufacturing States, do we not greatly impair this close union? Do we not introduce a strong interest, at variance with our agricultural interest, grounded on the same principles as the mis-named American System? Shall we not change the obnoxious spinners and weavers of more distant places, for others still more obnoxious, because better known to us, and within our own domicile?

While we received our supplies from other nations, we felt not and cared not, for the profits made out of us. We knew that we bought cheap—for we are all well aware, that fair competition will always keep those profits down to moderate rates. But as soon as our *friends* turned *their* capital and *their* attention to supply us at home,—so soon did they overthrow the very vital principles of fair trade and common honesty; and we now find ourselves converted into mere game, to be run down by them, and every Southern Planter's income, into a common property, which it only required the juggle of a new act of Congress to conjure out of his pocket to put in theirs. Have we seen and felt the odious means taken to accomplish these ends? Have we seen how very soon filthy self-interest will convert a friend into an opponent,—we would almost say into an enemy?—and shall we not take warning? The Tariff is, indeed, as striking an instance of imposition on the generous and liberal notions of the South, as it is of the blindness and folly, and the cold-blooded avarice of its inventors. Convinced, as we now are, that we would rather submit to imposition from abroad, than bear with it at home, do not let us introduce amongst us, into the very bosom of these Southern States, the seeds of *their* disunion.

The stranger who gets the highest price he can for his goods and wares from us, does so in fair trade; and we purchase from him as cheap as we can upon the same principle. We cannot deal with our Northern brethren in this way, for the Tariff has tied us hand and foot—and those

who passed that law, *think* they have delivered us up to their spinners and weavers, ready bound, for their purposes. We now see those who have drawn tight the cord, preparing to compel us to buy, to our ruin, what they have persuaded themselves we can no more do without, than the bread we eat. Are not all these things lessons to us, and if they are so, shall we not apply them at home?

When our *neighbours* turn to manufacturing instead of the Tariff men, how are we, the Southern Agriculturists, to be benefited? What does it signify to us, whether A. in Massachussets, sells us, at a dollar, what we ought to get from England or elsewhere, for twenty-five cents;—whether it is B. in Virginia, C. in Georgia, or D. in our own state? Our patriotism, it is true, is called upon to support the citizens of this State and their undertakings; but who are they, or how long will they be among us? They may be strangers or Northern men,—they may emigrate in a summer. What then is the intrinsic difference to us? None;—it is a delusion—a phantom conjured up by the impulse and excitement of the moment. By patriotism? No!—by the same deceptive notion of profit to individuals, as created the Tariff patriotism of the North.

Do not let us longer deceive ourselves;—the true test of patriotism is easily found. It leaves us free as air;—unshackled as the sea-breeze—aye, and it is as wholesome and as refreshing too. That patriotism which supplies its friends, its neighbours, and its countrymen, with wares and merchandize at *higher* prices than can be done by others, is no patriotism for us;—it is the unprincipled American System, and we protest against it. True patriotism, if there can be any in trade, will sell for *less* than the stranger sells for; and that is the true way, not only to insure the well-established regard of all, but to keep money in the country. The patriotic motives of him who sells dearer than can be purchased elsewhere, may well be doubted;—not so those of the brother, who sells to the brother cheaper than can be got from others—for he saves the difference of price to the family. The citizen who does so to his fellow-citizens, not only saves that difference to the state; but, by keeping off those who ask more, preserves the whole price within ourselves. This *may* be patriotism—all else is sheer trading.

If we have been chained down by our fellow-citizens of the Union, we may also be fettered by our brethren of our

own States. Have we not, in Carolina, taxed, and finally prohibited foreign Fire Insurance Companies? Have we not our oppressive and *demoralizing* Vendue laws? Have we not laws for protested Bills of Exchange, punishing the *innocent* in the same way, and to the same extent as the *guilty?* Is there not a late law, regulating the mode of measuring ranging timber, (a produce of the soil, brought for sale by the Planter or Farmer, of a particular district of this state,) but permitting those, whose interest it is not be controlled by the law, viz. the purchasers of ranging timber, to buy contrary to the very law enacted? If we have these laws favouring and protecting the parties concerned in such matters;—may we not have laws to protect spinners and weavers? Did the Tariff spring from the latitude or longitude of the north—from its frosts or snows—from the length and coolness, or from the darkness of its nights? No;—its principles lie deep in the human breast—in our nature —in our propensities and our pursuits. We search around for the reward of our industry; we grasp at every new opening for its exercise, and we exact our claim, *when we have the power*, where we can, and from all we can, be our home in the South, or in latitude 43°.

But, if we cannot manufacture, what then shall we do to disenthral our agriculture, from the ruinous impositions of the General Government?

Should we be able to free ourselves from those in the shape of Tariffs, they will come upon us in some other way as harsh and as little to be borne—for the spirit of oppression is abroad in these lands! While we merely paid the taxes for the *non-paying* states, and relieved them from their weight, if they refused to hear reason, will they listen to us, when to that strong temptation they have added the still stronger one of annually dividing amongst themselves, the common income of our country, until they are gorged, and we are left in despair?

What a prospect is before the Agriculturists of these Southern States. Our cotton reduced below a living price. Our Government expenses increased beyond human endurance. Not by the legitimate calls of national expense, and that expense to be paid in equal, or fair, or rateable proportion, by all the individuals of the Union, as pointed out by justice, by equity, and by the Constitution! No;—to be paid by us, who find it hard to live. While the majority

not merely spare *themselves* and save *their* property,—but barefacedly triple tax us, and divide, amongst themselves, the revenue by millions.

Which is worst then—that our hard earned incomes should be torn from us, to feed hungry weavers and spinners, or to be divided amongst ravenous state-jobbers and contractors? Unless a change takes place speedily, it will be of little consequence to us;—for, too soon we shall have nothing left to give either—far less to give both.—EDITOR.

(To be concluded in our next.)

ART. VII.—*Remarkable Peculiarities of the present year in Bryan County, Georgia; by* CHARLES H. STARR.

To the EDITOR of the "SOUTHERN AGRICULTURIST."

"Bryan County, Georgia, June 2, 1828.

Sir,—Though denied the pleasure of a personal acquaintance with you, yet, as a young Planter, fond of agriculture, and desirous of receiving and extending all information in my power on that important subject, I take the liberty of troubling you with a communication, which, if you deem of sufficient consequence, you can introduce into your useful Journal. My own little experience does not allow me to make known any facts in relation to cotton planting, that comes under my particular superintendence; I hope, therefore, that I may be permitted to draw on my neighbour's for such intelligence as I may receive from a visit to their fields, and, without further apology, send it to you.

My friend and near neighbour, Mr. Raymond P. Demeri, of this county, has a field of five acres of cotton which was planted in April of the last year. Sedge land banked in from the salt water, well ditched, and otherwise in good order. Until the middle of July the prospect of a crop was very promising; but the heavy rains about that time caused it to drop its fruit; and, from that field, he made but about fifty weight to the acre. The winter, however, having been so mild, it continued to grow, (with some slight checks from

frost,) and in January, the cotton on the tops of the stalks, was hanging from the pods, though not in sufficient quantities to pay for the labour of picking.

On the 7th of April last, it was killed down to the surface of the earth,—has since put forth fresh leaves, and now presents the singular spectacle of a field of regular cotton, covered with flowers, blossoms, and pods, besides the white cotton dangling at the tops of the stalks. I have never myself, before witnessed such a fact, nor have I seen any one who has. A single stalk preserved in this manner I *have* heard of;—but a field of five acres, (exposed for a whole season,) in its present condition, is, to me, certainly remarkable. Perhaps it is owing to the salt quality of the land; for the adjoining land, though higher, in the same field, has not a stalk with a sprout. Should this be the true cause, (for salt lands are comparatively warm,) we have a farther evidence of the benefits which may result from the planting of reclaimed salt-marsh. Perhaps some of your numerous readers may be able to give a useful opinion on the subject.

I remain your's, &c.

CHARLES H. STARR.

ART. VIII.—*Queries on the Culture of Rice; by* WILLIAM WASHINGTON, *with Answers by* ROSWELL KING.

(Continued from page 357.)

"Hampton, near Darien, September 1, 1827.

Sir,—On getting home last night, I found your letter of the 10th August, containing several Queries on the subject of Rice planting. I shall reply to each in the order given. You justly observe, that the low prices obtained for cotton, renders it necessary, that some other culture must be resorted to. Rice, at two tierces per acre, must be done in Carolina, as it is better than Cotton; but, in this state we have the advantage of both Rice and Sugar-Cane.

1st. What preparation do you give your land before you begin to plant?

Ans. On a soil not more than one year in Rice, if there be a superstratum of vegetable matter, nothing more is done

than to burn off the stubble in January, which allows the birds to take off much of the volunteer or red Rice; much is also destroyed by vegetating in lands more worn or longer in Rice. I have ploughed, or turned up with the hoe, and harrowed.

2nd. When do you begin to plant?

Ans. About three or four days before the first full tides in March, having the lands well prepared, and mostly trenched, so as to embrace the height of the tides for flowing, generally planting the old lands first; the *second* high tides, I plant the strongest lands;—thus arranged, the whole crop is not all ripe at once.

3d. Do you select your seed, and how do you know the best seed? Do you prefer your seed from the North or South, and how often do you change your seed?

Ans. During the winter I select twenty or twenty-five bushels from the clearest, longest, and heaviest ears, from that which had been selected the year before;—this is planted separate, and called the seed field. I would prefer getting seed from the north. Our seed has not been changed for many years; but once, about four years ago, I got some from Carolina, and introduced the smut, which was the first that I ever have seen in Rice. The selecting of seed is easily done, and at little expense, by invalid negroes and on rainy days.

4th. How many rows to the task or quarter of an acre? How many bushels of seed to the acre?

Ans. I never put more than seventy rows to the task, and not more than one and a quarter bushels of seed to the acre; and for the last four years, but one and an eighth bushels; though, in old lands, without a rotation of crops, I should put more;—perhaps one and a half bushels.

5th. Do you scatter in the trenches, or, as it is technically called, string plant?

Ans. I never string plant, but scatter in the trench four to six inches.

6th. Do you point-flow, and if so, assign the reasons?

Ans. I never point-flow, because I think it gives a spindling growth to the Rice, and prevents its tillering, which is the principal part of a crop, where so little seed is used, and generally the longest heads.

7th. How many times do you hoe before you put on the water?

Ans. After the Rice is up, it is not flowed until the full moon in May, unless the weather is very dry;—it is then flowed or wet twelve to thirty hours; but never, if it continues in a vigorous state, until May, perhaps having had *two to three hoeings.*

8th. How long do you keep on the water?

Ans. I have no stated time for retaining the water on Rice. So soon as it is planted, I flow as deep as possible, which rafts all the trash from the field against the banks, where it is carefully taken off with a long handled rake, not touching the land, lest it should disturb the Rice in the trench;—it continues in that state four, six, or eight days, governed by the temperature of the atmosphere; so soon as the germs appear it is let off; the Rice then rises regularly. Our May flowing continues six, eight, and sometimes ten days;—when the water becomes stale, it is turned off;—if there are rains occasionally, I never flow again until the heads are swelling. I then keep it on until harvest, sweetening with every tide that we can command.

9th. If in grass, would you put on the water or not? What do you call a good crop to the acre or to the hand?

Ans. I have flowed when the Rice was in grass, particularly in hard clay lands—otherwise, the shank grass breaks off, leaving the root. The water crop, or joint grass, is more easily got at, and the land is not so much opened, and the roots of the Rice exposed;—when the soil is composed of vegetable matter I would not flow. I consider three tierces, or eighteen hundred pounds, nett Rice, per acre,—or fifteen tierces to the hand, a good crop. I have made rather over four tierces per acre,—and others on the river have made as much.

10th. Have you ever ploughed the land whilst the Rice crop was growing, or do you object to it, and why?

Ans. I have never ploughed whilst the crop was growing, but the last working of the Rice with the hoe;—when in the water, the hands go in and stir or turn up the earth; or, as they term it, muddy the water. The finer particles settle on and around the roots, which gives strength to the plants at the time of heading; and should there be a scarcity of water, the roots are, in a great measure, protected.

11th. Do you keep your land dry all the winter, or do you flow it?

Ans. I keep the land as dry as possible during the winter.

12th. Have you ever used salt or brackish water, and what has been the result? Have you ever used lime on your land, and how do you apply it?

Ans. Accidentally salt water has got into the fields in high easterly winds, at the time Rice was in milk;—the result was, almost total loss, and a repetition of it must injure the soil. I have never used lime, but am convinced it must be beneficial to soils liable to salt water.

13th. How do you know the best time to cut Rice, and what is the task of a labourer in harvest?

Ans. I would venture to cut Rice, when a few grains at the lower end of the ear was in milk;—better under ripe, than over ripe, particularly when a full crop was on hand. The task given, is half an acre per hand. I give more—cut one task in the morning, when the Rice is too wet to bind—then bind one and a half tasks, unless the Rice is lodged. Sometimes fifty hands will cut twent-eight to thirty acres.

14th. Is there any peculiarity in your preparation of Rice for market?

Ans. There is no peculiarity of our preparing Rice for market. The great point, I think, is stacking carefully;—first, in small stacks, such part of the crop as will remain unthrashed all winter, is put up in large ricks, in October, on beds raised from the ground about three feet;— if put into large ricks from the field, it is apt to heat, and being careful not to mix the sweepings with the prime Rice. The use of the Brush Screens I have found beneficial in our mills.

15th. Have you ever cultivated Guinea Corn as a provision crop, and if so, what do you think of it? Do you ever judge by the roots of the health of your Rice?

Ans. I have never cultivated the Guinea Corn, but am told it is productive, though almost impossible to keep off the birds.

16th. Have you ever practised a succession or rotation of crops, and if so, which do you most approve of?

Ans. A rotation of crops is necessary to make large crops of Rice,—either Cotton, Cane, or any dry culture, as it serves to incorporate the vegetable matter with the clay, in putting up and taking down the beds, as well as to eradicate the water grass and volunteer Rice. I prefer Cotton before Rice; but care must be taken, in strong lands, immediately after Cotton, that the Rice does not lodge, which

is done by topping;—in May, just before the jointing, cut liberally, full one-half; and again in June or July, just before the shooting, if the Rice is flaggy, not touching the leaf that envelops the ear, it not only prevents its lodging, but puts on equality, many shoots that would be kept back, and become after-Rice. Were it practicable, I would cut down within four inches of the ground, every acre. In May 1822, our Rice was three to four feet under water for fourteen days, and rotted off to the surface;—I considered it as lost. In a few days it appeared, fresh and healthy;—the average crop was 2426 lbs. nett, per acre, four barrels. I have tried the experiment since, but could not command water.

17th. Should the river or creek on which your lands are situated turn salt from a great drought, what mode of attendance would you pursue? Would you take in water before it did turn salt, at a time when the Rice was not in actual want, or would you let the water by? Do you ever hoe your Rice, while your fields are filled with water?

Ans. Butler's Island is so situated, (up and down the river, about four miles,) that, in dry years, when the river becomes salt, at the lower end of the island, the water is brought in by canals at the upper end, and let into the fields at high tides, when the river is salt. I have taken in water before high water, and after the ebb tide, preferring a little good water, to a quantity of bad. The two last workings are done by hand, picking out grass. There is no rule to be strictly followed;—the Planter must be governed by circumstances. Water is, at times, as injurious to Rice as the want of it. The point-flow, in my practice, I should object to, as I conceive it to be a lazy way of killing grass and making Rice.

I am, Sir, your most obedient servant,

ROSWELL KING, Jun.

PART II.

SELECTIONS.

ART. I.—*On the Method of Preventing the Deterioration of Vegetables. The Culture of the Potatoe. Read before the New-York Horticultural Society, in* 1823*; by* WILLIAM WILSON.

[FROM THE NEW-YORK FARMER.]

In treating of those causes which have a natural tendency to effect the deterioration of vegetables, it may be proper, in the first place, to observe, that many of our most delicious vegetables were once, as they still are, in their original or natural state, possessed of very inferior qualities to those we find contained in such as have been long retained in a careful state of cultivation; and the greater the degree of improvement that may have been effected by cultivation, the greater is the care necessary to be observed by the horticulturist, to prevent it, in any degree, from falling back. And when we reflect that all those excellent vegetables which we cultivate for the use of our tables, are, almost all of them, very highly improved varieties from their original stocks, we cannot help being convinced of the great necessity there is, for exercising care and skill, not only in the retaining of them in such a state, but for the rational purpose also of still farther endeavouring to increase that improvement so laudably commenced by ancient horticulturists.

Perhaps the whole of those vegetables known under the general name of Pot and Medicinal herbs, may be retained genuine by a very ordinary degree of care; their principal degree of improvement seeming chiefly to depend upon adaptation to such soils as are naturally the most congenial to the different varieties. But when we come to consider the most valuable and interesting kinds of vegetables, we shall easily perceive the very great degree of care that is necessary to be exercised in their cultivation, in order to retain the improved varieties true and genuine. Of these we shall notice the Potatoe. This is a kind of vegetable, the great

value of which is universally known;—it constitutes a most agreeable and permanent treat at the tables of all classes of society, and in some countries, constitutes a very essential portion of the sustenance of the inhabitants;—and I am persuaded there are but very few who have ever tasted the potatoe in such a state of perfection as it is generally to be found in Britain, who would be willing to accept of any other culinary production whatever, as its substitute. By far the greater portion of potatoes brought to the markets of this city, are of an inferior quality—and this is a fact applicable to no other vegetable production, with which our markets are so profusely and eminently supplied; but it is a fact of great importance, and such as we consider highly deserving the most serious consideration of every man in society, the least concerned in the culture and management of this most interesting production. The question which here naturally presents itself is, whether there actually exists any insurmountable obstacle to the most successful culture of the potatoe; or, whether its inferior qualities are owing to some deficiency or errors in its management and mode of culture. These are questions which we intend most explicitly to discuss, and submit our sentiments, with great confidence of their being well grounded, as being the results of many years' careful practice and experience in the cultivation of this vegetable in various soils,—from the heavy clay to the lightest sand. And, in the first place, we hesitate not to assert it as our most confident opinion, that there are no insurmountable obstacles to our obtaining abundant supplies of potatoes for our markets, of as good a quality as those of Britain or any other country. It was no uncommon thing some thirty years ago, to meet with fields of potatoes in some parts of Britain, of as inferior qualities as any of those brought to our markets at present. But these instances were only found in soils which were naturally wet and heavy; and all their writers have very sagaciously recommended light dry soils for the culture of the potatoe and only such soils are there generally appropriated for its cultivation;—great care is also paid to the selection of the most proper sorts for planting. It is by confining their culture to such soils as prove most congenial for them in particular climates, and taking care to select proper ones for seed, that they are to be obtained in all that degree of dryness and fine flavor, which at once constitute them, of all other culinary vege-

tables, without a rival;—and here it may be anxiously inquired, have we any soils at all in this section of our country capable of producing potatoes of such excellent qualities? I answer, yes—abundance. But we, at the same time, like the inhabitants of Britain too, possess those that will seldom fail to contaminate every potatoe root produced in them; and those soils that prove the very bane of the potatoe here, are just such as prove the most congenial for them in Britain. And so, on the contrary, the best soils by far, for producing the driest and best flavored potatoes here, and altogether the most abundant crops, are those of a strong heavy loam. These, I acknowledge, are bold, and rather novel assertions, respecting the culture of the potatoe, diametrically opposed to every principle exhibited in the most able writings of Europeans. But as they are the results of more than twenty years' careful observation and experience, they will, at any rate, I think, be likely to escape the epithet of rashness or error, which ought certainly to be carefully guarded against by every one who offers his sentiments to the public. But to return to our fine heavy loam;—it must be remembered, that although this is the proper soil here for the culture of the potatoe, it requires, nevertheless, a proper mode of cultivation, in order to insure a good crop. It must be well labored, moderately manured with horse dung or light compost; the potatoes planted at a good distance, and the earth amongst them kept clear, free and lose, by frequent hoeing or ploughing. The potatoes for planting ought to be selected from the most approved sorts; as this too is an object of considerable importance. But without the quality of the soil is constantly attended to, the purest sorts will degenerate in one season. I once cultivated a piece of ground on the estate of Henry A. Coster, Esq. at Kip's Bay, on which I planted the same sort of potatoe for nine years successively, without ever changing the seed. A sufficient quantity of the proper shape and size were yearly selected for seed, and the whole seemed to improve rather than degenerate;—the soil was about five feet deep, a very strong heavy loam. For seven years successively, I have tried every means I could think of to obtain a good crop of good potatoes from a dry sandy soil; two years out of which, I had something like a very middling crop of tolerably good potatoes. These were what might justly be styled moist, or rather wet seasons. The other five years were, what might be em-

phatically termed dry, and the produce of one acre of heavy soil, has frequently yielded me more in one season, than the best acre of the sandy soil did, through all the five years put together;—and, what to many may appear most remarkable, the drier the season, the more soft and watery was the produce of this sandy soil. In the culture of potatoes on strong heavy soils, I never perceived them the least injured by wet seasons, except in spots where surface water stood, which ought carefully to be guarded against. Any deficiency too of the cultivator, in bestowing the necessary labor on the soil, is naturally attended with a deficiency in the produce, as well as of the quality of the potatoes; but, in dry, sandy soils, except in such wet seasons as but very seldom occur in this country, it is just as impossible to obtain a good crop of potatoes, as it would be to obtain a good crop of them in Britain, in the most wet and stubborn soils of that country.

It is but of late years that the people of Britain have become acquainted with the most proper mode of cultivating this root; and in this country, its cultivation, as yet, seems to have been attended with the same degree of carelessness and indifference that attended it for many years after its first introduction into Britain. One great detriment to the paramount establishment of an effectual improvement in the culture of any vegetable is, the confident and contradictory reports of partial experiments. The want, too, of properly organized associations for their able investigations and determination on such subjects, has, till of late years, greatly operated against our progression in all rural improvements. These associations, however, are now fast increasing, and highly encouraged by our wise legislators; and there is every reason to hope, that through their united energies and friendly intercourse, many important improvements will be gradually developed and supported, which otherwise, might long remain in obscurity or neglect. I have dwelt to a great length, on the subject of our endeavouring to effect an essential improvement in our potatoe culture, in hopes, that, should these sentiments become known to any of our neighbouring associasions, they might receive from them that degree of consideration, which the principles they advance, and the importance of the subject on which they treat, may appear to them to deserve.

NOTE BY THE EDITOR.

It is a rare occurrence to meet with a dry, mealy, Irish Potatoe at our tables, except those imported from Europe. Those raised in So. Carolina are generally, we may almost always say, waxy, and of inferior flavor;—nor are those brought from the Northern and Eastern States any better. Perhaps Mr. Wilson, in the above communication, has assigned one of the principal causes for the inferiority of the potatoes raised in America. We say one of the principal causes;—for we believe, that the climate of a country must, and does always affect, both the product and flavor of all vegetables, especially the Irish potatoe. The particular variety of seed used, must also have a considerable effect, This alteration in the kind of soil used for their cultivation. may prove of great advantage, and a real improvement in the Northern States;—but it remains to be proven, whether the quality of the potatoe will be improved here, by cultivating them in low, moist ground. That the quantity will be greater, we have but little doubt; for once we had occasion to plant some on the side of a low ridge, and we found that the potatoes were most abundant as we approached the low ground; and that the upper part of the patch did not yield by a third, as much as those planted, on what might be called moist ground. The whole of them were planted at the same time—were manured and treated alike. We do not recollect to have noticed any difference as to their dryness or flavor. To our Planters who regard not so much the earliness, as the quantity and quality, we strongly recommend the cultivation of the Irish potatoe on low ground. Our market Gardener's will not readily adopt this, as it is more important for them to have even a small quantity early, than a larger at a later period. This will induce them to continue planting on light soils, under the impression, that this will produce the earliest crop. Perhaps this may be the case, but we confess we have some doubts on this point. Taking one year with another, it will be found, that about the time that the potatoes are forming, or rather maturing their tubers, that we usually have very dry weather. We grant, that, during the first stages of their growth, that those planted on light soils, will, in appearance, surpass those on the low ground; but,

when the dry weather sets in, it will be found, that the latter will soon overtake the former. It appears essential to the production of a good crop, that, at the time of forming and maturing their tubers, they should have an abundant supply of moisture. What we have here stated is not mere opinion —it is founded on the few observations we have been able to make on this plant. But, even supposing that the high light soils will produce them earlier than the low—yet, wil it not be advantageous to plant then, a few on that kind, and those for an early crop; and have the main crop on the low ground, especially if it should be found to improve the quality of the potatoe. We do not, however, anticipate much in this respect. We fear that the heat of our climate will ever be a bar to this. We may be mistaken, and we hope we are;—but let us not think of effecting any material improvement, without carefully attending to the choice of our seed; and we must discover some method of preserving them from year to year. It will not answer for us to depend on yearly importations from the North; for, if we do so, we may at one time procure very good, and the next may be execrable. Soil, climate, and cultivation, may have a great effect in improving even a bad variety; but to have them in perfection, it will be necessary to obtain the best seeds. We recollect to have dined with a friend once, when some remarkably dry and mealy potatoes were on the table. On inquiry, we found that they had been planted on very high sandy soil, and manured with the latter from the stable. Potatoes had often been planted on this spot before, but they were always waxy, and never had any thing to recommend them to notice. The superiority of this crop in flavor, could not be accounted for, except it was owing to a superiority of the seed, which had been purchased from on board of a vessel from the North. Potatoes have been planted on the same spot and in the neighbourhood, but they never equalled these. This will serve to show of how much importance it is to obtain good potatoes for setts.

ART. II.—*Communication from* WILLIAM WILSON, Esq. *of Clermont, New-York, on the Culture of the Grape. Addressed to the New-York Horticultural Society, March*, 1821.

[FROM THE NEW YORK FARMER.]

Gentlemen,—You noticed a few grapes which I sent last summer to my friend, Mr. Peter Hattrick;—they were not intended for exhibition, or perhaps better bunches might have been sent;—but, as they met your approbation, the mode of raising them may not be unacceptable. I have cultivated grapes for more than twenty years, and for the last ten with success. The soil in which they grow, is a light gravelly loam, the ground perfectly level;—the vines were raised from cuttings, and planted in the place they were intended to be continued, and where they now are. I have two rows of about twenty-five vines each,—one on the north side of the garden, exposed to the south, and protected by a high board fence;—the other row in the middle, and most exposed situation, with no shelter whatever. For the first six or seven years, they were cultivated in the usual way, cut down to three or four feet, and supported by stakes and laths. Their growth was rapid, and required a good deal of trimming. They bore fruit; but in two years out of three, they were blasted and mildewed, good for nothing; all we got was trouble and vexation. I had resolved to abandon them. About this time, I observed in the woods, some very fine looking wild grapes, the vines running up high trees, and most of the fruit at or near the top. On examining, many were found in the same situation;—from this I took the hint, of raising the cultivated grape higher from the ground. At the time of trimming, I left the vines their whole length, ten or twelve feet or more, cutting away every side shoot, and leaving the vines as clear of shoots, or spurs, or beads, as possible. The spring following, by every vine was fixed a strong stake, at least ten feet high, with most of the limbs untouched, so that they had the appearance of large bushes, or well grown saplings. The vines were twisted around them to the top, and when necessary, tied with bass. By the middle of June, the stakes were entirely covered by the new shoots of the vine, and with plenty of fruit, which was fully ripe in September, and not one bunch blasted or mildewed; there was not one clus-

ter within three or four feet of the ground. Since that time, I have continued the same practice, and have now vines twenty or thirty feet long, some of which run up the fruit trees adjoining, the others being carried up eight or ten feet, and then stretched horizontally. It is no unpleasant thing to see a cherry tree on one hand, a pear tree on the other, and a peach tree not far off, all ornamented with clusters of grapes. Yet such is the case, and has been for years past. Several strangers, both citizens and Europeans, curious in such things, have called to examine for themselves, and have generally allowed it to be the most successful cultivation they had seen.

To the Members of the Horticultural Society, who, it is probable, are mostly practical men, I cannot write in their technical language; it is therefore hoped, that they will excuse the inaccuracies that occur. In as few words as possible, the whole management of the year is as follows, and it matters not at what period we begin. The fruit begins to ripen early in September, and continues till the frosts in October. As soon as the grapes are all gathered, that is about the 15th of October, the stakes are taken up, and thrown aside for fire wood. The vine is then stretched out its whole length, and trimmed as clean as possible, in which state it is left lying on the ground, for two or three weeks. About the last of November, they are laid on the surface at full length, and fastened down with pins, and covered lightly with earth, which is done by digging a shallow ditch on each side, and throwing up the ground to the middle, which forms a ridge over the vines, and covers them about ten or twelve inches; no straw, manure, or any other covering but the earth;—in this state they lie all winter. In April, as soon as the weather will permit, they are uncovered, and left on the ground for ten or twelve days, or more;—the stakes are now, about the first of May, fixed in their places, and the vines re-placed as before. They require no farther trouble, unless some that may be blown down are to be put up again. The borders are now well dressed by digging and raking; but no manure, nor has any been put on for ten years, or more. They are also kept perfectly clean through the summer, by frequent hoeing and raking;—no vegetables are allowed to grow on the borders at any time.

This mode of raising grapes differs from the ordinary in these particulars:—

1st. Trimming or pruning;—this is usually done in February or March. Here, we never cut a vine later than November; were this done in the spring, they would either bleed to death, or be so much weakened as to bear no fruit. In general, we are too sparing of the knife, leaving too many eyes or buds, by which you get too much wood, and too little fruit; and there is a mistake, which all writers that I have seen, have fallen into, that "vines bear their fruit on the wood that was produced the preceding year." This is not the case, for the fruit is invariably on the wood of the present year.

2d. The next difference is, laying down and covering the vines all winter. In our northern climate, this is absolutely necessary; it may not be so farther south, yet it is worth a trial with a few vines. Prune in October, lay them down and cover in November or December, and take them up in March. One season will test the utility or futility of the practice.

3d. Another difference is, leaving the vine its full length, and training it as high as possible. This I have never seen except in my own garden;—but it is the practice, in some parts of Italy, where the vines run over the poplar and elm trees.

4th. Most people plant their vines in sheltered and warm places;—this is following the English mode where the climate requires it. Here, my vines that are most exposed, bear equally, if not better than others.

5th. No manure has been used for many years. Its use gives wood, not fruit.

The greater part of the grapes are the sweet water;—these are the best bearers, and pleasantest for the table. The miller grape answers well for a variety, and is a good bearer. I have tried the red and black Hamburg, but they do not succeed so well. I am now trying to raise the Madeira grape, having received a few cuttings, which came from that island last spring, all of which are growing, and shall have a fair trial.

The borders on which the grapes are cultivated, are six feet wide, and the vines in the centre.

With respect, I am your humble servant,

WILLIAM WILSON.

Clermont, March, 1821.

Art. III.—*On the Selection of Seed Corn; by* Calvin Jones.

[from the American Farmer.]

"Wake Forest, (N. C.) January 15, 1827.

Dear Sir,—I have endeavoured, in conformity to your request, to find the communication I some years ago made to the newspapers, of Joseph Cooper's method of selecting seed corn, but in vain,—though I have searched several files of papers and a series of almanacks, in which I remember to have seen it. It was my intention, upon this failure, to have furnished you with what my memory retained, of the information Mr. Cooper gave me; but it has somehow been delayed to this time, when happening to see in the second volume of the "American Farmer," a letter from John Taylor, of Carolina, to George W. Jeffreys, recommending a mode of selection that was pointedly condemned by Mr. Cooper, I have been reminded of what I owe to one who has laid the whole agricultural community under so many obligations. As these conflicting opinions are sustained by perhaps equal authority, it appears to me *now*, as it may have done to you *before*, that it is important both should be known, in order that the fact, now held doubtful, may be subjected to further experiment, and settled by other and uniform testimony.

In a tour to the north, about the year 1810, I paid a visit to the celebrated New Jersey farmer, Joseph Cooper, who then resided on the banks of the Delaware, opposite to Philadelphia. In a walk over his fields, I remarked what I thought the great proportion of ears of corn to the stalks on which they grew, and asked Mr. C. if my impression was correct—if his corn was not unusually prolific? He answered me in the affirmative, and proceeded to inform me how it had attained that quality. It was owing to his selecting for seed, the ears from stalks, which produced two or more each, while the corn was standing in the field. He illustrated the effects of his peculiar mode of selection by an anecdote. A Judge Pennington, (I think that was the name,) had made the same observation that I had, and asked for some of his *prolific sort of corn* for seed;—Mr. Cooper supplied him. After a few years, the Judge applied

for more, saying the seed had degenerated and quite run out—and though, at first, unusually productive, it was now no better than corn of the common sort. Mr. C. asked if he observed his injunctions as to the method of saving seed. He said he remembered none; but his method had been, when the corn lay in a heap, to select the largest and fairest ears. Mr. C. assured him, that this was the worst selection he could have made, for these large and fair ears were produced singly upon a stalk, and would infallibly produce stalks bearing no more, and, of course, an inferior crop. The Judge was once more furnished with seed, upon a promise to select in the prescribed manner,—and no complaints were afterwards made of its degeneracy.

What the estimated advantage of Mr. Cooper's mode of selection was, I do not exactly recollect;—I only remember the impression that it was more moderate than I had expected, considering the importance he seemed to attach to it. I think he might have calculated, that in the many years he had pursued the plan, his crops had, from this cause been improved about 12 or 15 per cent.

If what I recollect of Mr. Cooper's practice and opinions, shall appear adapted to promote rational and successful inquiry, or to the establishment of a useful fact, you are at liberty to make such use of this as you may think proper;—and I shall be gratified that I have been able, in this imperfect manner, and at this protracted period, to furnish an acceptable answer to your inquiry.

With great respect, I am your obedient servant,

CALVIN JONES.

J. S. SKINNER, Esq.

ART. IV.—*Lime necessary for Raising Peas.*

[FROM DICKSON'S FARMER'S COMPANION.]

It is observed, that the common pea, whether white or gray, cannot be reared to perfection in any field which has not been either naturally or artificially impregnated with some *calcareous* matter. And hence it is supposed to happen,

that peas are rarely cultivated, universally, as a field crop, unless in those parts of the country where either lime, marl, or chalk abounds, or upon strong clays; except, indeed, on the sea-coast, where shell-fish are often caught in abundance, and where the fields are manured with shells, in a state of mixture with dung. But it is remarkable, that a soil that could scarcely have brought one pea to perfection, although richly manured with dung, from their running too much to haulm, and after blossoming, dying away without becoming ripe;—if it has once had lime applied upon it, is capable, when properly prepared in other respects, of producing plentiful crops of peas ever afterwards. It is further remarked, on the result of an experiment, in which the ridge of a field had been missed in liming, produced no good wheat, while all the other parts afforded a good crop;—that lime, or some other calcareous material is equally necessary for the production of good wheat crops as for those of the pea kind. The general observation, that the wheat, where this sort of manure has been employed, is thinner in the skin, more plump, and yields better, seems also to favour the same conclusion. Impregnations of this sort appear likewise, particularly favourable for the production of barley crops, much more so, (if in large productions,) than for those of oats.

RICE MACHINE.

A new machine for separating the grain of rice from its husks, has been invented in Italy. It consists of two fluted cylinders, set in motion by an hydraulic wheel. These cylinders, revolving on a horizontal plan, detach the grain from the panicles. It subsequently passes across a wooden hurdle, while the straw is separated by the movement of the machine.—*American Farmer.*

PART III.

MISCELLANEOUS AGRICULTURAL ITEMS.

DOMESTIC.

Olive Gathering in Portugal.—Towards the month of November, the olive arrives to that degree of ripeness which renders them fit for the annual operations. Like our walnuts, they are beaten from the boughs by means of long rods; while large cloths spread around the trunk, receive as many as fall within the space they occupy. The rest are gathered from the ground by women and children; and so great is the produce, that the entire population of an olive district, find ample employment in this work alone, for several weeks, although assisted by large groups, who flock from a distance of nearly two hundred miles, to share the labor, and return with a little store of money thus earned, for their winter subsistence. Nothing can exceed the sprightliness of these olive gathering parties;—from sunrise to the hour of vespers, no sound is heard than that of singing and merry converse; while every countenance reflects the gladness of the season, and the general happiness of the simple-hearted peasantry. When the mills are set in motion, the farmer can securely reckon on a supply of ready money, wherewith to cultivate his lands;—the pork-feeder and poulterer find the bruised kernel of the olive, a plentiful and nutritious article for fattening their numerous pigs and turkeys;—while the poor labourer, in addition to his present wages, anticipates to pay, and stores of preserved olives, which, with a little bread, will long furnish the daily meal for himself and his household, almost free of cost. An imperfect idea may be formed, even from this slight sketch, of the cheering effect produced, when the national tree yields its accustomed tribute to the children of the soil,—and imagination will not fail to picture, in a like degree, the deep gloom, despondency, and the disappointment that pervade all these classes when that supply is withheld, whether by the immediate visitation of Providence, in smiting the earth with a blight—or the remorseless cruelty of man, in wantonly afflicting his fellows.

Cattle Pens in Jamaica.—In raising dung, they rank among the best farmers in the world. In Jamaica, the refuse canes assist as litter and food for the cattle; the cane tops and leaves of Guinea corn are given the cattle plentifully in pens, where they

waste enough to make litter. The pen is first spread thickly with marl, or earth; and by feeding many horses, asses, mules, cows, oxen, and swine, in them, by their dung and urine, and waste of food, they add a layer upon the marl, and wonderfully enrich the whole compost. When more marle is carted in, and the cattle fed upon that, and so in succession, till it is wanted for the plantation, when the cattle are moved into other pens. The compost is then turned over, and well mixed together. This management of cattle lasts the whole year.—*Amer. Husbandry.*

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Oyster-Shells.—Where circumstances will admit of the transportation of oyster-shells by water, forty or fifty miles, they can be delivered at eight cents per bushel, and large quantities may be obtained. It has been found, that within a few miles of the sea-side, that a dressing of sixty to a hundred bushels to the acre on a field of rye, made a very striking difference in the crop;—that part of the field to which none were applied, being much inferior both in straw and berry. If useful in such situation, may it not be fairly inferred, that they would be of more value forty miles inland, where the soil would be entirely beyond the reach of the saline vapors from the sea? They are usually put on the land but partially broken. If some cheap mode were devised of reducing them to powder, their value would be greatly increased. In all cases, however, they should be used as soon after they are opened as possible, as there is some portion of animal matter attached to the shell; and in no case should they be burnt for manure, except when lime is required in preference to any thing else.—*Notes to Davy's Agricultural Chemistry.*

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The Silk-Worm.—The culture of Silk is one of the easiest of domestic productions. A few mornings since, on visiting an extensive nursery of the Silk-Worm in this vicinity, we were satisfied that the attention of a single person, of almost any age, or either sex, is sufficient for the care of some thousands of them. The eggs in this nursery were received from Connecticut, but the young hatched animals feasted with avidity on the leaves plucked from an adjacent mulberry tree.

A friend who accompanied us in the visit, mentioned, that he had recently purchased, for a daughter, a farm in Windham, (Conn.) of which five acres were planted with mulberry trees, for the sole purpose of raising food for Silk-Worms. He added, that the trees on an acre would furnish food for worms, which would produce, annually, five hundred pounds of raw silk;—and that the raw and sewing silk, raised in Connecticut as early as 1810, was worth nearly $20,000,—all raised by females.—*Boston Centinel.*

Veals.—In selling veal to butchers, their haggling was extremely disagreeable; and, to avoid it, I sometimes either at once broke off, or gave up to their offers. At length, after weighing veals killed for my family, I fixed on a price by live weight, at which to sell. The butcher, at first, refused to be fixed at any rate;—they afterwards came to, and agreed at 3d. live weight;—3 cents 3 mills 3-10.

A veal alive, weighed - - -	146 lb.
The four quarters, - - - -	70 "

Which is within 3 lb. of half the live weight.

At 3d. live weight, this veal would cost them 36s. 6d.;—but, for such, they used to give me 32s. to 33s. on the foot. The first sold by live weight were four veals; medium, live weight, 133½, which averaged 33s. 2d. a-veal. They usually sold at 7d., scarcely any part under 6d.; sometimes 7½d. and 8d. Their gain was above 40 per cent. Lord Kaims says, butchers gain but 5 per cent. in Scotland. They disliked the method by live weight, because of the certainty of reducing usual profits, gained from their superior skill in estimating the weight and value of veals.

Hams.

	lbs.		*lbs.*
1788. Dec. 2.—20 of my family hams trimmed, weighed, green, - -	321	or each	16 6-10
1789. June 30.—They weighed, when full smoked, - - -	256	"	12 8-10
Evaporations, - - -	65	"	3 8-10

The whole loss of weight, 20¼ per cent. or about 1-5th.

Dec. 22.—A tenant's hams; two weighed, green and trimmed, -	31
Aug. 11.—The same, when smoked,	26
Evaporation, - - -	5 or 16 per cent.

The tenant's were not so much smoked or dried, as he cured them for sale, and to weigh.—*Bordley's Husbandry.*

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Preservation of Grain, &c. from Mice.—Mr. M'Donald, of Scalpa, in the Hebrides, having, some years ago, suffered considerably by mice, put at the bottom, near the centre and the top of each stake or mow, as it was raised, three or four stalks of wild mint with the leaves on, and never after had any of his grain consumed. He then tried the same experiment with his cheese, and other articles kept in store, and often injured by mice, and with equal effect, by laying a few leaves green or dry

on the article to be preserved. From these results it must be inferred, mice have an antipathy to the smell of mint; if so, it may be worth experiment, to scatter a few drops of oil of peppermint in pantries and places where they frequent, as the effect will probably be the same.—*Min. Jour.*

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Salsafy, or Vegetable Oyster.—This plant, *(Tragopogon porrifolium,)* is biennial, and the root is a good substitute for the real oyster. It is of easy cultivation in a deep rich soil. The young plants are not so liable to be destroyed by insects, as most other biennials. The roots are white, and shaped like a parsnip. They may be taken up late in the autumn, and secured in moist sand from the air; or be suffered to remain out, and dug up when wanted. Every lover of oysters, who lives at a distance from the sea-shore, will wish to cultivate this plant, after he has once eaten them, when *properly prepared* for the table.

Mode of Cooking.—Wash the roots, and cut them transversely into thin pieces—boil them in a little water, or milk and water—when boiled soft, mash them, and thicken the whole with flour, to some degree of stiffness—then fry them in the fat of salt pork or butter. They are a luxury.

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Making the most of Land.—Captain James Perkins, of Essex, Mass. raised, last season, on an acre and a half of land, seventy-two bushels of Indian corn; seventy bushels of potatoes; seventy bushels of winter apples; eighty bushels of turnips; two loads of squashes; and two bushels of beans. One-third of the land alluded to, consisted of gravelly knolls. In 1826, the whole was planted with Indian corn.

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How to clear a house of Cockroaches.—Having been greatly annoyed by the nocturnal visits of these insects, which appear to be equally in want of food and clothing, some of my family applied a remedy which succeeded so well, that I am inclined to mention it for the benefit of those to whom it is not already known. Into a common bowl was put a gill or two of water, and made sweet with molasses. As the family were about to retire, this was set upon the kitchen hearth, under and about which seemed to be their favourite resort. Several splinters were placed, one end on the hearth, in order to provide a passage to the water. The first night, about twenty were taken; the second, more than one hundred; the third, about fifty; the fourth, about twenty; the fifth, seven;—which, I believe, has very nearly cleared my house of the nuisance.

At the late meeting of the Farmers' Society, of Barnwell District, on the 21st July, the following were elected officers for the next year:—

Dr. J. S. Bellinger, *President;* the Rev. D. Peeples, first *Vice-President;* Colonel F. J. Hay, second *Vice-President;* J. O'Bannon, *Secretary;* J. G. W. Duncan, *Treasurer.*

Annual Committee:—J. G. W. Duncan; W. D. Martin; Angus Patterson; G. Trotti; Major Schmidt; G. W. Collins; W. J. Duncan.

FOREIGN.

Restoring Vegetable Life.—This object may in many cases be effected by a powerful stimulant, and, for all practical purposes, nothing is better than hot water, as any person may prove to himself with a withered nosegay. Camphor, however, is a still more powerful stimulant; and, by combining this substance with water, by the medium of alcohol, as much can be effected in the way of restoration to life, as is practicable in the vegetable kingdom. In the *Transactions of the Prussian Gardening Society*, directions are given for dissolving the camphor in alcohol to saturation, by adding it, till it remains solid at the bottom of the vessel. The alcohol so prepared, is to be added to water, in the proportion of four drops to an ounce; add the two fluids beat together, till the flocculi of camphor disappear. Plants, or parts of plants, are then to be immersed in this liquid, but not longer than four hours; for, if the vital principle cannot be restored in that time, they may be considered irrecoverable.—*Gar. Magazine.*

Sauerkraut, &c.—Few things in the domestic economy of the Germans, strike an English resident more, than the preparation far exceeding that in his own country, which they make for the winter consumption of vegetables. Sauerkraut is a kind of food of which every family stores up, in proportion to its size, one or more large casks; and, at this time of the year, (October and November,) the market-places are crowded with huge white pyramids of cabbages (all heart) for sale; and, in every court and yard into which an accidental peep is obtained, is seen the bustle of preparing them for use, and the baskets of shredded cabbage, which, in that state, resemble mountains of green-tinged froth, or syllabub. *Kidneybeans* are another vegetable, of which, at an earlier period of the year, the Germans store up large quantities for winter consumption; a circumstance which accounts for the number of acres of this plant, which at first excites the traveller's surprise, cultivated in the open fields, in the neigh-

bourhood even of towns not very large. Of the quantity of kidneybeans thus stored in inns and large families, an idea may be formed from the following fact:—During two days that we spent in the latter end of August, at the Trierische Hof, the principal hotel at Coblentz, from eight to ten women were constantly employed in the yard, (as they probably had been before our arrival, and continued to be after our departure,) in trimming and slicing [the pods of] kidneybeans, of which, besides a large basketful next to each, there stood another in the midst of the circle that would have filled a good-sized cart. The beans thus prepared, are plunged into hot water for a few minutes, then drained, and closely packed with salt in jars or barrels.

In a similar manner are stored, in October, considerable quantities of the leaf-stalks, and dried ribs of the leaves of young turnips, (after the thin part the leaf has been stripped off,) and a portion of the bulb, all cut into lengths of about an inch.

Without this provision of sauerkraut, kidneybeans, and turnips, added to an ample stock of potatoes, onions, carrots, (kept in sand,) &c., all deposited in the spacious cellars, with which every decent house is provided; and, moreover, abundance of apples, pears, and quinces, both fresh and dried) by being pared, cut into slices, and hung on strings near a fire); a German family would think itself ill fortified against the approach of winter, and would relish very badly being put, at this season, on the short and unvaried English commons of potatoes, with an occasional change of borecole or Savoy cabbage. In fact, no German conceives he has dined tolerably, at any season, without having eaten of three or four kinds of vegetables. To decide which is the *best* system, the German or the English, would require a long discussion; but two points seem clear—first, that the adoption of the varied German vegetable fare in England, would lead to a great extension of its horticulture; and secondly, that the English cannot fairly determine how far they would prefer the German system until they have tried it. Many English residents in Germany are as loud as the natives in the praise of sauerkraut when properly cooked, which is every thing. For these reasons, it might be worth while, for some of our horticultaral societies to procure from the foreign ones, full and precise directions for preparing and storing their winter vegetables, and then offer premiums for the most successful imitation of the practice at home, giving a fair trial to sauerkraut, salted kidneybeans, &c. by having them served at their anniversary dinners, cooked in the most approved foreign modes, as there seems no good ground why vegetables preserved and cooked in new ways, should not be tasted and decided on at such dinners, as well as fruits grown or kept by new processes.—*Ibid.*

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